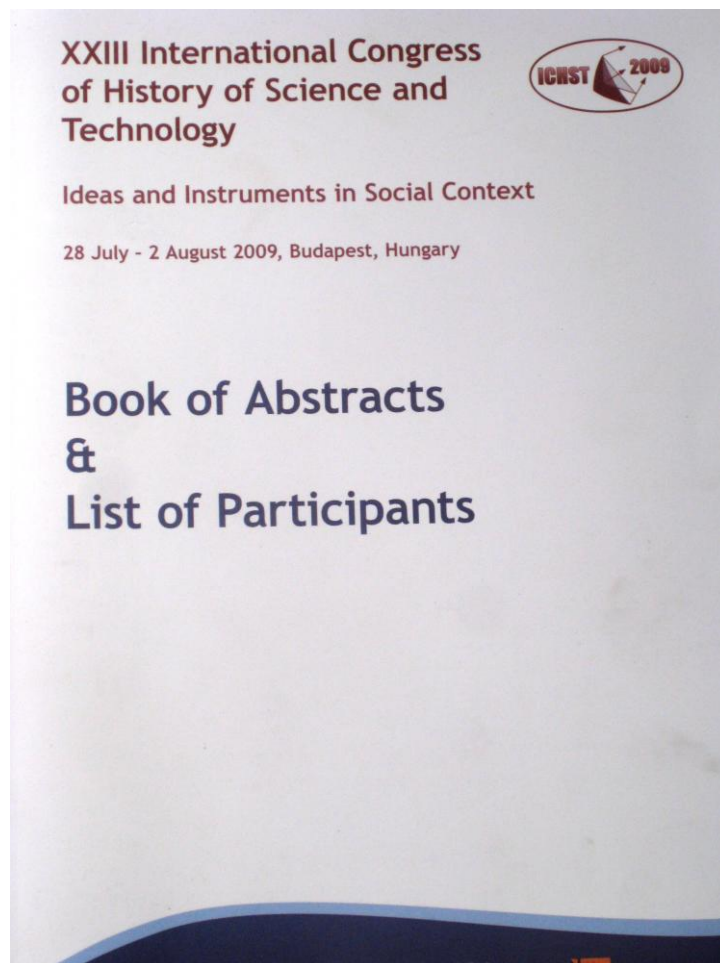


Internationale activiteiten rond ‘marxisme’:

1. Marx’s Appeal to Dutch Scientists:

“Wij kunnen het niet langer aan de politici overlaten”, (dissertatie, 1994): ICHST-congres Boedapest. Vraag: werden de organisaties van progressieve intellectuelen in Nederland, VWO en BWA, geïnspireerd door een marxistische zienswijze?



Boedapest 2009, Symposium S-38:

In the period after 1945 Dutch science was revolutionized *twice* by internal *movements* that disputed the social function of science. After the World War II research workers wanted to prevent the products of science from being further misused in the future by the politicians in power: the *Verbond van Wetenschappelijke Onderzoekers* (VWO, Association of Scientific Research Workers) was born. Twenty-five years later, in 1969, the *Bond voor Wetenschappelijke Arbeiders* (BWA, Union of Scientific Laborers) was founded with the goal to promote the ideal of an ‘oppositional practice’ in the member’s daily work. They also advocated that results of science should benefit the common people. Both initiatives were the

new generation's expression of the dissatisfaction with the existing power structures in science, and in both cases Marxist opinions played a significant role¹.

After the First World War groups of scientists had already given form to their 'social responsibility'. A forceful, international impulse had been given by the British *Association of Scientific Workers* (ASW), both by their collective publication *The Frustration of Science* (1935) and by *The social function of science* (1939), by their Marxist spokesman John Desmond Bernal. In 1946 the ASW, which at this time acted as a partner in the then Labour government of Great Britain, called upon scientists worldwide to erect sister organizations. This helped lead to the foundation of the *Verbond* in the Netherlands. I would like to begin with the clarification of the expression 'Marx's appeal to scientists' in this context.

Marx's appeal to scientists:

The most important contribution of Marx to science is the adaptation of his historic and dialectical method to the vastly important science of 'political economics'. In *Volume III* of *The Capital* he writes that science has the task of "bringing back the visual, apparent movement to the proper real movement"²: and indeed, he made it his life's work to understand and *explain* the underlying economical mechanisms of the everyday capitalist society. The true concept of *exploitation* emerged after his discovery of the real *surplus value* as the source of wealth in capitalist society. Forty years of hard work as an economist had changed his triumphant discovery of the 1840s into the tangible science of the three *Volumes* of *The Capital*: a cathedral of beauty and of scientific serenity, especially *Volume I*, as I was lucky to experience as a student in chemistry. Having read this, I was able to understand his sarcasm in the *Prologue* when he speaks of ordinary economics: "It did not matter (...) if this or that thesis was true, but if that thesis was useful or harmful to Capital. Was it suitable or inconvenient, permitted or not. In stead of disinterested research came the paid bragging, impartial scientific research gave way to bad conscience..." In the midst of the credit crisis of today I realize how *true* these observations still remain.

In *Volume III* of *The Capital*, Marx clarifies in his reproduction schemes how closely the flows of wares and money listen to the hidden mechanism of the market, even in the hypothetical case of a society functioning at a very simple level, without banks or credit system. Even in this case higher mathematics imposes itself. Marx is, with his *Volume III*, the father of all publications concerning the planning and regulation of state or corporate finances, the father and also the forebearer of economics advice institutions such as the Central Planning Bureau (*Centraal Plan Bureau*, the Netherlands, 1946) that have emerged in many places, in one way or another, after World War II.

¹Leo Molenaar: *We can't leave it to the politicians any longer; The history of the Association of Scientific Workers 1946-1980*, Den Haag 1994. The information in this abstract comes mainly from this source.

² Citations of Marx in Leo Molenaar, *The Lysenko Affair*, Komma, Amsterdam 1981, or from *The Capital*, *Prologue* and *Volume III*. Marx, of course, could only finish the first *Volume* of *The Capital*, with his brilliant philosophical, literary and historical exuberance, as usual (1868); Friedrich Engels reconstructed the prosaic *Volumes II* and *III* after the death of his friend (1883).

The crisis of capitalism and the Five Year Plans in the Soviet Union created in the 1930s a wave of publications about order, planned economy, and, with Bernal, even 'planned science'. In his *The Social Function of Science* (1939) the Marxist natural scientist Desmond Bernal observed that the First World War and the general crisis had made it very clear that science could easily be used for destructive means. And *for the first time in history* scientists asked themselves how their work related to social and economical developments: "The scientist has begun to realize his social responsibility, but if science is to fulfill the function which its tradition demands, and to avoid the dangers which threaten it, we require an increased appreciation, both on the part of scientists and of the general public, of the intricate relations between science and contemporary life." And: "For those who have seen it, the *frustration of science* is a very bitter thing. It shows itself as disease, enforced stupidity, misery, thankless toil and premature death for the great majority. (...) Science can change all this, but only science working with those social forces which understand its functions and which march to the same ends."³ Bernal's aim was for a movement of scientists to come together in order to understand Marx's analysis of capitalism, and to cooperate with socialist trade-unions and the working class proper.

Other socialist writers were also busy with wide perspectives for science and society, which I will further mention in the article. So, when I write about *Marx's appeal to scientists* I do not refer to specific opinions of Marx himself, but to the perspective that *socialist*, Marx-inspired spokesmen showed to their fellow scientists. Because of the title of this abstract I shall have to *overaccentuate* the socialist sources that inspired the Dutch *Verbond* of 1946 (also *VWO*, remember the *Association*) and the *Bond* of 1969 (also *BWA*, the *Union*).

The VWO (Verbond van Wetenschappelijke Onderzoekers).

Several prominent founders of this *Verbond* were inspired by the visions of Bernal's *The Social Function of Science* (1939) such as the physicists Cor Gorter (founder), Jan Burgers, Leon Rosenfeld (chairman), Marcel Minnaert (chairman) and the cultural anthropologist Wim Wertheim (chairman). Core items of this Marxist vision are the planning of science, the necessity of the organization of scientists themselves, the struggle against the operating gerontocracy in science, the start of the promotion of worldwide programs of scientific development and a repulsion to the way the politicians in power handled these issues⁴. Disease, poverty and war could be abolished: science could play its salutary role for humanity, if the *ASW*, the *VWO* and their sister organizations could show the way to the people. The *Verbond* wanted, as the *Principle declaration* (1946) states, to become a massive *professional* organization

³ J.D. Bernal, *Prologue, The social function of science*, 1939. Also a retrospect in *Marxism and the Science of Society*, a subchapter (12.7) of *The social sciences in history*, in *Science in History*, third edition, London 1965.

⁴ My dissertation took over the annoyance of Nobelprize winner Ernest Chain in Stockholm, it is 1945 after Hiroshima, "we, natural scientists, can't leave it to the politicians any longer". And it is not the *BWA* on which my book is focused. I hope to write a study of the *BWA* by its own merit (2011-2014) after the biography of the communist leader in Dutch parliament Marcus Bakker (1956-1982).

of research people who were socially conscious and accepted their *social responsibility*.

A similar 'planning of science' was also argued by social-democratic scientists, inspired by Marx, such as Karl Mannheim in his *Mensch und Gesellschaft im Zeitalter des Umbaus* (1933), but he wanted the leadership of science safely in the hands of the democratically chosen governments. He pleaded the cause of a 'politicizing' (*Politisierung*) of scientists. Also in *One World or None* (1946) an elite of North-American scientists sketched an ethical, cosmopolitan perspective, in which the *United Nations* would play a key role in the designing of 'a science for construction'. They advocated, following in the slipstream of Bernal, worldwide research programs in the fields of atomic energy, health care, hygiene, agriculture, nutrition and development: plans that were enthusiastically supported by the *Verbond*.

The *Verbond* attracted primarily the elite of scientists of the day, but eventually grew into a fusion between these eminent scholars and a bunch of ambitious, young university and industrial staff members. This social constitution made it possible to propagate democratization, a renewal of the leadership of science, and new institutions of applied and fundamental research. The question of the power of decision making in the field of research was raised. The *Verbond* made a direct connection between science and human 'liberation', that was denied by politicians and capitalism. Therefore the *Verbond* could not be bound to party politics as this would undermine the expressiveness and impartiality of its scientifically based judgment; the direction of the development of science should be left to the scientists. This approach became untenable when the Cold War, the struggle concerning world-hegemony between the United States and the Soviet Union, rendered the cosmopolitan ideas of Bernal and *One World or None* utterly obsolete. Projects such as the international control of atomic energy, which the Dutch physicist Hans Kramers, also a founder of the *VWO*, had put before the *United Nations*, or the conversion of military research into *research for development*, were swept aside. The governments again required from their research workers an unrestrained loyalty to their country in the arms race, whether in the West or in the East.

The *VWO* consisted of 500 personal members in 1947. From 1949 it started to publish its monthly magazine *Wetenschap & Samenleving* (*Science and Society*) which continued for more than fifty years. Apart from a temporary setback between 1951 and 1955, it resisted the arms race 'in the name of science', it fought with scientific arguments against nuclear tests and founded *Pugwash Nederland*, it stood up against the discriminatory practices of the State Security Service, the *Binnenlandse Veiligheids Dienst* (BVD) that suppressed the suspected socialists and communists amongst its members and it eventually won this difficult fight. A very thorough *Report* legitimized the existence of the *Verbond* as a scientific and 'concerned' *avantgarde*. The organization of the *VWO* would and could never have suspected *that the Verbond itself*, as I discovered in the state archives, was, in 1947 already, an extensive subject

for espionage and counter-influence on behalf of the State Security Service (*BVD*). That went beyond the scope of even the most suspicious chairman!

When at the end of the sixties the time of Cold War was over, a spirit of progress and socialism gained a revival in the *Verbond*. However, the new generation of scientists and students did not see eye-to-eye with the preceding generation, and wanted an outspoken, fresh, immaculate socialist organization, openly bound to organizations of the working class.

The BWA (*Bond voor Wetenschappelijke Arbeiders*):

At the end of the sixties capitalism lay under fire: the United States experienced a real rebellion of their students and youth. It was the time of the napalm on Viet Nam and Black Power in the ghetto's. Back in the Netherlands big movements of students challenged the governing boards of the universities that had survived the harsh criticisms of 1945. The clamor for more justice and a rational approach to government seemed to coincide with the arguments in favor of 'socialism'. An energetic vision about the changing role of science in society in a socialist direction, inspired the actions of many people. From this political climate the Marxist *Manifest* of the *Bond voor Wetenschappelijke Arbeiders: Science against Capitalism* (*Wetenschap versus kapitalisme*) was written. This *Bond*, this 'political organization of the scientific labor', wanted to reach a professional practice in line with the leftist ideals of its members. Academics, supposedly, would possess a large power because they were irreplaceable in their day-to-day work: "This power can be a serious potential threat for capitalist society when it would be managed in a correct and consequentially oppositional way. This power has to be used to bring a more rational and more human alternative closer to realization." Science had to be 'subservient' ('dienstbaar') to the working class: the desires of people in the labor quarters, of groups of workers and of action committees had to be met by science. The Marxist terminology of the *Manifest* was borrowed from analyses of French socialists such as André Gorz en Serge Mallet.

At the beginning of 1970 the *BWA* counted 600 members. During their activities on the universities these young rebels were often confronted by members of the *Verbond*. The conflict of interests between people who differed in a generation but who agreed on ideas concerning important issues (Viet Nam, chemical weapons, arms race, social responsibility) inspired many of the young ones to start a new organization, although working together was also an option. And indeed, opinions about the role of science in society were often diametrical between the members of *VWO* and *BWA*. The socialist *BWA* held the opinion that the direction of science was destined by expected profits, military purposes and the status quo of the capitalist powers. The sounding of the alarm of 'misuse of science', the traditional role of the *Verbond*, was in their eyes a goal that could not be achieved. The building of political power, both in the workplace and by empowering trade unions and leftist parties, was necessary to *change the content of science* in major fields.

The *BWA* was very active in the seventies in the issues of health care, psychiatrics, welfare work and law aid. The *Bond* initiated 'science shops' (*wetenschapswinkels*) on the universities and debates about military research, organized groups of research workers in companies such as

Shell, Philips and Unilever, talked about safety in the workplace, the poisoning of the environment or the scientific control of food. These consciously aware doctors, biologists, chemists and teachers drew the attention of their professions and the public. The *angry young (wo)men* stood up for radical democratization and sometimes conquered ‘oppositional professional strongholds’, in the main on universities. Dozens of subjects were talked about in special editions of *Wetenschap & Samenleving*, that became in a rather short time the *shared* magazine (1974) of *VWO* and *BWA*. The magazine published both mature and raw articles for a public of a few thousand subscribers. Both organizations fused in 1980 in a new formation: the *Verbond voor Wetenschap en Samenleving* (Association for Science and Society).

This *new Verbond* of 1980 broke through the old consensus of the *VWO*. The ‘scientific’ culture of the elite disappeared. In the seventies the rising of this new *Verbond* had worked as a ‘vehicle’ for the professionalizing of environmental science, science shops, risk analysis, alternative energy research, safety science, *technology assessment*, science journalism, feminist studies, education research, democratic management of science, science dynamics, etcetera. Idealism as regards the role of science was not longer the leading principle. The new generation thought that the industrializing of science had demolished the professional values of Robert Merton such as altruism, universalism and communalism: science had become steam rolled by capitalism. The new goals of the *Verbond* were a progressive regulation of science, imposed by parliament, and a morally responsible professional practice, anticipating democratization and socialist regulation of technology and research in society.

Political climate, and the ‘streaming’ of social engagement:

My dissertation begins with a sketch of groups of scientists coming out with their political ideas before World War II. I distinguish three ways in which they moulded their social responsibility towards society, that I named ‘streams’ (*inkleuringen*): the ethical indignation with respect to the degeneration of science and technology (I); the democratic planning of science and society (II); and the Bernalian social function of science. Each of the three approaches is very concerned and pessimistic about the operating social role of science. In my research these ‘streams’, in practice often mixed, stay the same with the words and deeds of *Verbond* and *Bond* after World War II.

The *first* ‘stream’ consists of the ethical protest against the degeneration of the technical culture, often inspired by humanistic, Christian and pacifist points of view. These scientists warn against the deification of technical success, demonstrate that cultural progress lags behind technical achievements, and observe that science and technical skill are primarily embodied in the instrumentation of the politically powerful.

The *second* ‘stream’ about the ‘planning of society’, is primarily inspired by social-democratic convictions. These scientists want political reforms in which the social role of scientific experts must inevitably become more important. Disinterested intellectuals, in the opinion of Mannheim and De Man, know best what is good for society: their strivings have a technocratic

label. In the *VWO* this will be the outlook of the policy in the sixties, after the first decade of continuous confrontation with the political powers.

The *third* ‘stream’ resists the frustration of science within capitalism, and wants a bigger role of science in a more rational, socialist society. Left wing scientists, like Bernal, Crowther, Blackett, Rosenfeld, Joliot-Curie, Wertheim or Minnaert⁵, often empty their arguments in revolutionary ideas, want a science to serve the people, and want to direct the research towards ‘real’ social needs that they sometimes formulate themselves. They can be optimistic about science under socialism, or the Soviet-Union, because they think that scientists there can get the freedom that is direly absent under capitalism.

There is mutual interest and influence between the ‘streams’. When the humanistic historian Johan Huizinga writes his famous *In the shadows of tomorrow* (1935), he already reacts indignantly to the disclosures about bacteriological warfare of Gorer and Charles in *The Frustration of Science* (1935). As a result of my dissertation I propose the thesis: “The optimistic political climate in society has induced both in the years after 1945 and in the end of the sixties, feverish activity of a minority of mainly young scientists, which has had an impact on the substance of science as a whole. The appeal of Marx has certainly inspired the Dutch activists of those periods.”

These ideals and activities have played a modest part in the general input for a more righteous society. In the political situation of 1945 the ‘planning’ of a better society gained the most attention, and so the emphasis in the *Verbond* could remain on the ‘planning of science’. In 1970 the arguments in favor of rationality and social justice seemed to be in line with the pleadings for ‘socialism’: the *BWA* was a melting pot of ideals and demands of young research workers. Optimistic and socialist opinions about the changeability of ‘society and science’ inspired, both in 1945 and in 1970, the foundation of these political organizations of scientists.

The third ‘stream’, a tangible example of Marx’s Appeal:

In 1951 the progressive chairmanship of the *VWO* of the left socialist Minnaert in Utrecht was interrupted by a ‘neutralist’ intermezzo. In that year the Amsterdam anthropologist Wertheim started a working group *The frustration of science*. Members wanted to realize this British publication of 1935 for the Netherlands: what were the external factors that stood in the way of the progress of fruitful Dutch research? A number of subjects were taken. Wertheim chose the issue of the lightbulb of Philips industries in Eindhoven. Someone had introduced him to the book of J. Martins (*All honorable men*, 1950), in which the story of Anton Philips is described, who complained in the 1930s about a competing business partner who manufactured lightbulbs with a longer burning time than had been agreed in the newly formed cartel of the different manufacturers. Whilst investigating the Philips-item Wertheim asked his fellow research workers, a few dozens of natural scientists at the *Philips Natuurkundig Laboratorium* (NatLab) were members, for the exact content of their contracts and for other confidential matters. One employee *did complain about the brand new luminescence founded tl-bulb*: the competing

⁵ In the slipstream of my dissertation I wrote a biography of the first chairman of the *Verbond*: Marcel Minnaert: Leo Molenaar, *The skirt of the universe; Marcel Minnaert, astrophysicist*, Amsterdam 2003, until now only in Dutch.

Sylvania brand had developed tl-bulbs that burned for 8.000 hours, but the scientist-designers of Philips had consciously diminished the cathodes to a burning time of 2.000 hours. His conscience as a technician was disturbed, but the employee begged Wertheim not to publish it. According to Wertheim's own handwriting: "Be careful, Philips will crush your arguments; the gathering of evidence will be very difficult for externals."

Wertheim kept his promise to be silent in 1954. But the author of the dissertation, yours truly, placed this issue, nota bene *in a footnote*, forty years later (!), and still a pandemonium broke loose. On the morning of my Ph.D. I heard the story of the tl-bulb on the radio news, and I could read it on the front page of the newspapers. That day Wertheim closed his personal archive on this issue for another twenty five years. I was very lucky that the director of the Philips Nat Lab of that period, Henk Casimir, admitted to an Eindhoven newspaper over the full page that for a short time *the arrogance of the merchant had indeed won over the ethos of the technician*. The phenomenon *planned obsolescence*, ancient hobby-horse of socialist amateur historians, was finally proved by means of a one-two between Wertheim and your puzzled historian. Pursued by unfriendly telephone calls from Eindhoven I kept the question *low profile*, because I was in no position to call names. Philips backed off, the honest and brave Casimir, who had always been in favor of the *Verbond*, had saved me. The Amsterdam working group of Wertheim had declared in their finale that a 'silk curtain' of cover-ups had been the most important hindrance: "it is almost impossible for an outsider to estimate the abuses and the evils". With the brilliant pass of Wertheim your author of two generations later could not miss the open goal: 'a silk curtain', indeed.

The report of the working group *The Frustration of Science* was not published: the criticism within the *Verbond* was too strong. Twelve years later, with a university becoming rebellious, the board of the *Verbond* decided to publish some sections after all, as a signal to a new generation to join the jolly old rebels. It worked a bit, but it could not avoid the founding of the *Bond* of 1969.

The magazine *Science and Society (Wetenschap & Samenleving)* also played a significant role in the movement against nuclear tests and the founding of the Dutch section of *Pugwash*. The *Pugwash Memo* of the *Verbond* against callous government lies, as spread household to household in the brochure *Hints for the protection of Your family and Yourself* (1961), appeared as a special edition and boasted a distribution of 25.000 copies. This scientific information, 'the truth about nuclear weapons', stimulated hundreds of church and civilian talking groups in the whole country. It laid the basis for the later Interparochial Peacegroup (*Interkerkelijk Vredesberaad, IKV*), that in the seventies would become, together with the communist initiated *Stop the Neutronbomb*, the founding father of the *hollanditis*, the mass movement of the eighties against the deployment of North-American nuclear Cruise missiles. Missiles that, after all, were not deployed this time.

The end?

The *Verbond* was moving into its end stage when my dissertation about its history appeared in 1994. The idealism and optimism of the seventies and eighties had practically vanished. Capitalism was the big winner. Quite a few people invited me to write down the inevitability of the vaporizing of movements such as the *Verbond*. And indeed, this organization withered away in the years after. But, in stead of saying goodbye, I quoted a citation of Lucas Reijnders, initiator of the *BWA*: “What is necessary? A limited number of people that can show enough civil courage to broach questions that differ from the *communis opinio* of science and of society as a whole.” And why not? Other times, even optimistic times, can come. Perhaps socialist ideals will again contribute to a revival of the progressive commitment of scientists in society.

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